

Claims

Sub A³

1. A method of generating a globally unique address for mobile computing applications comprising the steps of:
receiving global position information;
processing the received global position information to determine current location data comprising a current latitude, a current longitude and a current altitude;
and

converting the current location data so as to form an unresolved dynamic internet protocol (UDIP) address for use in transfer control and routing of data between a mobile device located at the current location and a server.

2. A method according to claim 1 wherein the UDIP address is compliant with IPv4 internet protocol.

3. A method according to claim 1 wherein the UDIP address is compliant with IPv6 internet protocol.

4. A method according to claim 1 wherein the global position information is provided by a GPS receiver coupled to the mobile device.

5. A method according to claim 4 wherein the data comprises audio and or video data.

6. A method according to claim 4 wherein the data comprises electronic mail.

7. A method according to claim 4 wherein the data comprises telematics data.

8. A method for transferring data between a host and a mobile apparatus comprising the steps of:

generating a UDIP address in the mobile apparatus based upon a current physical location of the mobile apparatus;

sending the UDIP address from the mobile apparatus to the host; and

registering and resolving the UDIP address in the host as an assigned IP address of the mobile apparatus for subsequent data transfer between the host and the mobile apparatus.

9. A method according to claim 8 and further comprising:

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16. A method according to claim 15 wherein the UDIP address is compliant with the IPv6 protocol standard.

17. ~~A~~ method according to claim 14 and further comprising:

identifying a first gateway on the internet having a unique name and a predetermined assigned IP address;

assigning the selected gateway for temporary use as a dynamic virtual gateway DVG;

presenting the designated DVG to the wireless communication device as a virtual host;

identifying a second gateway on the internet having a unique name and a predetermined assigned IP address;

assigning the second gateway as a next gateway; and

resolving the UDIP to form a resolved dynamic IP address for data communications between the wireless device and a selected one of the first and second gateways.

18. A method of data communication with a mobile device comprising the steps of:

in the mobile device, acquiring location data;

in the mobile device, converting the acquired location data to form a geo-IP address;

formatting the geo-IP address in conformance with a predetermined standard IP protocol thereby forming an unresolved dynamic IP (UDIP) address; and storing the UDIP in a memory in the mobile device; and

periodically repeating the foregoing steps thereby updating the UDIP responsive to newly acquired location data;

requesting address resolution, including sending the stored UDIP to a host:

assigning a dynamic virtual gateway DVG to the UDIP;

combining the assigned DVG address together with the UDIP so as to form a resolved dynamic IP address (RDIP); and

using the RDIP as an assigned IP address of the mobile device for data transfer.

19. A method according to claim 18 and further comprising:
monitoring an elapsed time since the location data was last updated;
if the elapsed time exceeds a predetermined time limit, reacquiring location
data; and then repeating the foregoing steps based on the newly acquired location
data.

20. A method according to claim 18 including assigning a new DVG responsive to the newly acquired location data.

[illegible]